REMARKS/ARGUMENTS

Status of the Claims

Claims 1-32 were last examined. Claims 31-37 are canceled herein and no claims have been added. Claims 1, 22 and 24 have been amended herein. Support for the amendments to claim 1 may be found, for example, in Fig. 1. The amendments to claims 22 and 24 were necessitated by the amendments made to claim 1. Based on the following remarks, Applicants respectfully request that all outstanding rejections be reconsidered, and that they be withdrawn. Applicants believe that no new matter is presented by these amendments and respectfully request entry of the same.

Information Disclosure Statement

The Examiner has indicated that Reference A21 on the IDS was not considered because the document number does not correspond to a patent publication. As the Examiner suggested the entry contains a typographical error. The correct number is 20050026147A1 to Walker et al. published February 3, 2005. Applicants have submitted a supplemental form 1449 herewith. Applicants believe that no fee is required for submission of this statement. However if a fee is required the Commissioner is hereby authorized to charge the required fee to Account No. 01-0431 in order to have this reference considered.

Double Patenting

Claims 1-6, 14, 16-18, 22-23, 25, 31 have been provisionally rejected on the grounds of nonstatutory obviousness type double patenting over the claims 1-4, 6, 20, and 24 of co-pending Application No. 10/951,983 in view of McCarthy et al. (US PgPub 2004/0067559). Once allowable subject matter has been indicated, Applicants will

consider submitting a terminal disclaimer as may be appropriate. Applicants request that this rejection be held in abeyance until allowable subject matter is indicated.

Rejection under 35 U.S.C. § 103 over Blume et al. in view of McCarthy et al. should be withdrawn.

In paragraph 5, claims 1-6, 9, 12-18, 22-24, and 31 have been rejected as allegedly being obvious over Blume et al. (US Patent Publication 2005/0123956) in view of McCarthy et al. (US Patent Publication 2004/0067559). This rejection is respectfully traversed for the following reason. Blume et al. is available as prior art only under 35 U.S.C. 102(e) and is disqualified as prior art against the present application under 103(c) because of common ownership.

Application 10/796,323 and Application 10/951,983 (Blume et al., PG Pub US20050123956) were, at the time the invention of Application 10/796,323 was made, owned by Affymetrix, Inc.

Rejections under 35 U.S.C. § 103 should be withdrawn.

In paragraph 6 claims 1-10, 12-16, 18-22, 24-28 and 31 are rejected as allegedly being obvious over Sehgal et al. (Journal of Surgical Oncology, 1998, vol. 67, p 234-241)("Sehgal") in view of Eberwine et al. (PNAS, 1992, vol. 89, p. 3010-3014)("Eberwine") and McCarthy et al., (US PgPub 2004/0067559)("McCarthy").

Claim 1 has been amended to clarify that mRNA is the template for amplification and the amplification product is ***sense*** strand cDNA fragments. Claim 1 requires first strand cDNA synthesis using mRNA as template followed by second strand cDNA synthesis in the presence of dUTP. The UTP is thus incorporated into the second strand cDNA, which is the same sense as the RNA template. Multiple rounds of cleavage at the

sites of UTP incorporation, followed by extension from the site of cleavage, generate additional second strand cDNA fragments. The amplified fragments are second strand cDNA fragments with the same sense as the mRNA template.

Sehgal is cited as teaching amplification of mRNA by reverse transcription to generate first strand ***antisense*** cDNA. The antisense cDNA product is complementary to the starting material. Sehgal does not teach synthesis of an amplification product that is amplified second strand cDNA fragments. Sehgal also fails to teach synthesis of a DNA amplification product that is sense relative to the starting RNA. Eberwine teaches first strand cDNA from an mRNA template, second strand cDNA synthesis followed by antisense cRNA synthesis. The amplification product taught by Eberwine is ***antisense*** cRNA. Eberwine does not teach a method of obtaining amplified fragments of second strand sense cDNA. McCarthy teaches first strand cDNA synthesis with incorporation of dUTP into the first strand cDNA. Cleavage at the sites of dUTP incorporation, followed by extension from the ends generated by cleavage, results in an amplification product that is first strand cDNA fragments and ***antisense*** in orientation relative to the template. Sehgal, Eberwine, and McCarthy each fail to teach generation of an amplification product that is second strand cDNA fragments that are ***sense*** in orientation relative to the starting template and therefore fail to teach or suggest all the claim limitations of amended claim 1 and dependent claims 2-30.

To properly reject a claim under 103 a *prima facie* case of obviousness needs to establish that the references, either alone or in combination teach every claim element. (*See*, MPEP §§ 706.02(j) & 2143). With respect to independent claim 1, as amended, Sehgal, Eberwine, and McCarthy, either alone or in combination, fail to teach the feature

of incorporating dUTP into second strand cDNA, nicking and extending to generate sense strand cDNA fragments from a starting RNA. Therefore, the requirements for a *prima facie* case of obviousness are not met and the rejection of independent claim 1 and dependent claims 2-30 should be withdrawn.

In paragraph 7, claims 10 and 11 are rejected as allegedly being obvious over Sehgal, in view of Eberwine, McCarthy, and Blanco et al. (US Pat. 5,198,543, March 1993). As discussed above, Sehgal, Eberwine and McCarthy, either alone or in combination, fail to teach generation of an amplification product that is second strand cDNA fragments and sense in orientation relative to the starting template. Therefore the combination of Sehgal, Eberwine and McCarthy fail to teach or suggest all the limitations of amended claim 1, from which claims 10 and 11 depend. Blanco et al., is cited for teaching the use of strand displacing DNA polymerase phi29. Blanco et al., fails to cure the deficiencies of Sehgal, Eberwine and McCarthy.

In paragraph 8, claims 17-23 are rejected as allegedly being obvious over Sehgal, in view of Eberwine, McCarthy, and Wang et al. (US Pat 6,004,755; Dec 1999). Wang et al., is cited for teaching the inclusion of biotin in cDNA synthesis. For the reasons discussed above, Sehgal, Eberwine and McCarthy fail to teach all of the limitations of amended claim 1 from which claims 17-23 depend and Wang fails to cure the deficiencies.

In paragraph 9, claims 29-30 are rejected as allegedly being obvious over Sehgal, in view of Eberwine, McCarthy, and Caskey et al. (US Pat 5,364,759; Nov 1994). Caskey et al. is cited for teaching adaptor ligated PCR amplification. For the reasons discussed above, Sehgal, Eberwine and McCarthy fail to teach all of the limitations of

amended claim 1 from which claims 29-30 depend and Caskey et al. fails to cure the deficiencies.

In paragraph 10, claim 32 is rejected as allegedly being obvious over Sehgal et al, in view of Eberwine et al, McCarthy et al., and Lipshutz et al. (US Pat 6,300,063; Oct 2001). Claim 32 has been canceled herein making this rejection moot.

CONCLUSION

In view of the foregoing, this application should be in condition for allowance. A notice to this effect is respectfully requested.

Respectfully submitted,

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